

**ABSTRACT OF THE INVENTION**

1       Interferometric apparatus and methods for reducing the effects of coherent  
2 artifacts in interferometers. Fringe contrast in interferograms is preserved while  
3 coherent artifacts that would otherwise be present in the interferogram because of  
4 coherent superposition of unwanted radiation generated in the interferometer are  
5 suppressed. Use is made of illumination and interferogrammetric imaging  
6 architectures that generate individual interferograms of the selected characteristics of  
7 a test surface from the perspective of different off-axis locations of illumination in an  
8 interferometer and then combine them to preserve fringe contrast while at the same  
9 time arranging for artifacts to exist at different field locations so that their contribution  
10 in the combined interferogram is diluted.